Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A data processing system having a storage device for recording data which belongs to an object representing a target event, in which one or more tables are stored in the storage device, each of the tables defining the number of data recordable areas per object, and each of the objects and recording areas in each table individualized by an identifier capable of taking numerical form, said system comprising:

specification means for specifying an identifier related to the data concerned and the number of recording areas of the table to be accessed in response to a data accessing request;

range of area determining means for determining the range of recording areas in the table to be accessed by executing a predetermined computational algorithm which uses as variable factors at least the identifier and the number of recording areas specified by said specification means; and

recording area managing means for recording the number of data recording areas assignable to each object in each of said one or more tables;

wherein said specification means specifies the number of recording areas of the table to be accessed by checking said recording area managing means in response to the data accessing request, and

wherein said accessing request is executed with regard to said determined range of recording area.

2. (currently amended) A data processing system having a storage device for recording data which belongs to an object representing a target event, in which one or more tables are stored in the storage device, each of the tables defining the number of data recordable areas per object, and each of the objects and recording areas in each table individualized by an identifier capable of taking numerical form, said system comprising:

a data recording module for accessing said storage device and recording data in recording areas of any one of tables in response to input of the data concerned and a data recording request, and a data retrieval module for accessing said storage device and retrieving the data concerned from one of the tables in response to a retrieval request;

wherein one of said data recording and retrieval modules is configured to specify an identifier related to the data to be targeted and the number of recording areas of the table to be accessed, determine the range of recording areas in the table to be accessed by executing a predetermined computational algorithm which uses as variable factors at least the identifier and the number of recording areas specified, and execute said search request to the determined range of recording areas ~~access the range of areas determined~~; and

further comprising recording area managing means for recording the number of data recording areas assignable to each object in each of said one or more tables;

wherein said number of recording areas of the table to be accessed is specified by checking said recording area managing means.

3. (original) The data processing system according to claim 1, wherein

said specification means specifies an object identifier (M) and the number or recording areas (N) per customer of the table to be accessed, and

said range of area determining means determines the range or recording areas capable of being accessed in the table concerned by executing the following computational algorithm from the identifier (M) and the number of recording areas (N) specified:

$$N * [M - 1] + 1 \sim N * M,$$

where the term inside the square brackets indicates an integral value calculated by a Gauss function.

4. (original) The data processing system according to claim 1, wherein,

said specification means specifies an identifier (αa) of a recording area of a first table in which data belonging to the target object is to be recorded, as well as the number of recording areas (Na) per object of the first table and the number of recording areas (Nb) per object of a second table in which data associated with the first object by the target object are to be recorded, and

said range of area determining means determines the range of data recording areas capable of being accessed in the second table by executing the following computational algorithm from

the identifier (αa) and the respective numbers of recording areas (Na, Nb):

$$[\alpha a/Na] * Nb + 1 \sim [\alpha a/Na + 1] * Nb,$$

where the term inside the square brackets indicates an integral value calculated by a Gauss function.

5. (original) The data processing system according to claim 1, further comprising:

means for accepting a table join request for joining first and second tables associated with each other by an object and retrieval conditions therefor;

means for decomposing the accepted retrieval conditions on a table basis; and

retrieval means for executing the table join request accepted, wherein

said specification means specifies an identifier (αa) of a corresponding recording area from the first table on the basis of the retrieval condition decomposed for the first table, as well as the number of recording areas (Na) per object of the first table and the number of recording areas (Nb) per object of the second table,

said range of area determining means determines the range of recording areas to be retrieved in the second table by executing the following computational algorithm from the identifier (αa) and the respective numbers of recording areas (Na, Nb):

$$[\alpha a/Na] * Nb + 1 \sim [\alpha a/Na + 1] * Nb,$$

where the term inside the square brackets indicates an integral value calculated by a Gauss function, and

said retrieval means performs data retrieval processing for the range of recording areas determined by said range of area

determining means according to the retrieval condition for the second table.

6. (original) The data processing system according to claim 1, further comprising:

means for accepting a table join request for joining first and second tables associated with each other by an object and retrieval conditions therefor;

means for decomposing the accepted retrieval conditions on a table basis; and

retrieval means for executing the table join request accepted, wherein

said specification means specifies an identifier (αa) of a corresponding recording area from the first table on the basis of the retrieval condition decomposed for the first table, as well as the number of recording areas (Na) per object of the first table and the number of recording areas (Nb) per object of the second table,

said range of area determining means determines the range of recording areas to be retrieved in the second table by executing the following computational algorithm from the identifier (αa) and the respective numbers of recording areas (Na, Nb):

$$[\alpha a/Na] * Nb + 1 \sim [\alpha a/Na + 1] * Nb,$$

where the term inside the square brackets indicates an integral value calculated by a Gauss function, and

said retrieval means performs data retrieval processing according to the retrieval condition for the second table to determine the logical product of the identifier of a recording area obtained in the retrieval processing and the identifiers of all the recording areas of the range determined by said range of

area determining means so as to specify recording areas in which data according to all the retrieval conditions are to be recorded.

7. (original) The data processing system according to claim 1, wherein the recording areas are formed consecutively in each individual table on a row or column basis, and the identifier is a row or column number in the table concerned.

8. (currently amended) A data processing method for use in a computer system having a storage device for recording data which belongs to an object representing a target event, in which one or more tables are stored in the storage device, each of the tables defining the number of data recordable areas per object, and each of the objects and recording areas in each table individualized by an identifier capable of taking numerical form, said method comprising the steps of:

specifying an identifier related to the data concerned and the number of recording areas of the table to be accessed in response to an access request for the data containing identification information for identifying the object;

determining the range of recording areas in the table to be accessed by executing a predetermined computational algorithm which uses as variable factors at least the identifier and the number of recording areas specified by said specification means; and

said computer system further having recording area managing means for recording the number of data recording areas assignable to each object in each of said one or more tables;

wherein said number of recording areas of the table to be accessed is specified by checking said recording area managing means, and

wherein said accessing request is executed with regard to said determined range of recording area.

9. (currently amended) A computer-readable recording medium on which a computer program is recorded, the computer program being used in a computer system having a storage device for recording data which belongs to an object representing a target event, in which one or more tables are stored in the storage device, each of the tables defining the number of data recordable areas per object, and each of the objects and recording areas in each table individualized by an identifier capable of taking numerical form, and said computer system further having recording area managing means for recording the number of data recording areas assignable to each object in each of said one or more tables, said computer program executing the following processing steps of:

specifying an identifier related to the data concerned and the number of recording areas of the table to be accessed in response to an access request for the data containing identification information for identifying the object; ~~and~~

determining the range of recording areas in the table to be accessed by executing a predetermined computational algorithm which uses as variable factors at least the identifier and the number of recording areas specified, wherein said number of recording areas of the table to be accessed is specified by checking said recording area managing means; and

executing said accessing request with regard to said determined range of recording area.

10. (currently amended) A computer program for use in a computer system having a storage device for recording data which belongs to an object representing a target event, in which one or more tables are stored in the storage device, each of the tables defining the number of data recordable areas per object, and each of the objects and recording areas in each table individualized by an identifier capable of taking numerical form, and said computer system further having recording area managing means for recording the number of data recording areas assignable to each object in each of said one or more tables, said program constructing:

specification means for specifying an identifier related to the data concerned and the number of recording areas of the table to be accessed in response to a data accessing request for the data containing identification information for identifying the object; ~~and~~

range of area determining means for determining the range of recording areas in the table to be accessed by executing a predetermined computational algorithm which uses as variable factors at least the identifier and the number of recording areas specified by said specification means, wherein said number of recording areas of the table to be accessed is specified by checking said recording area managing means; and

executing means for executing said accessing request with regard to the determined range of recording areas.